

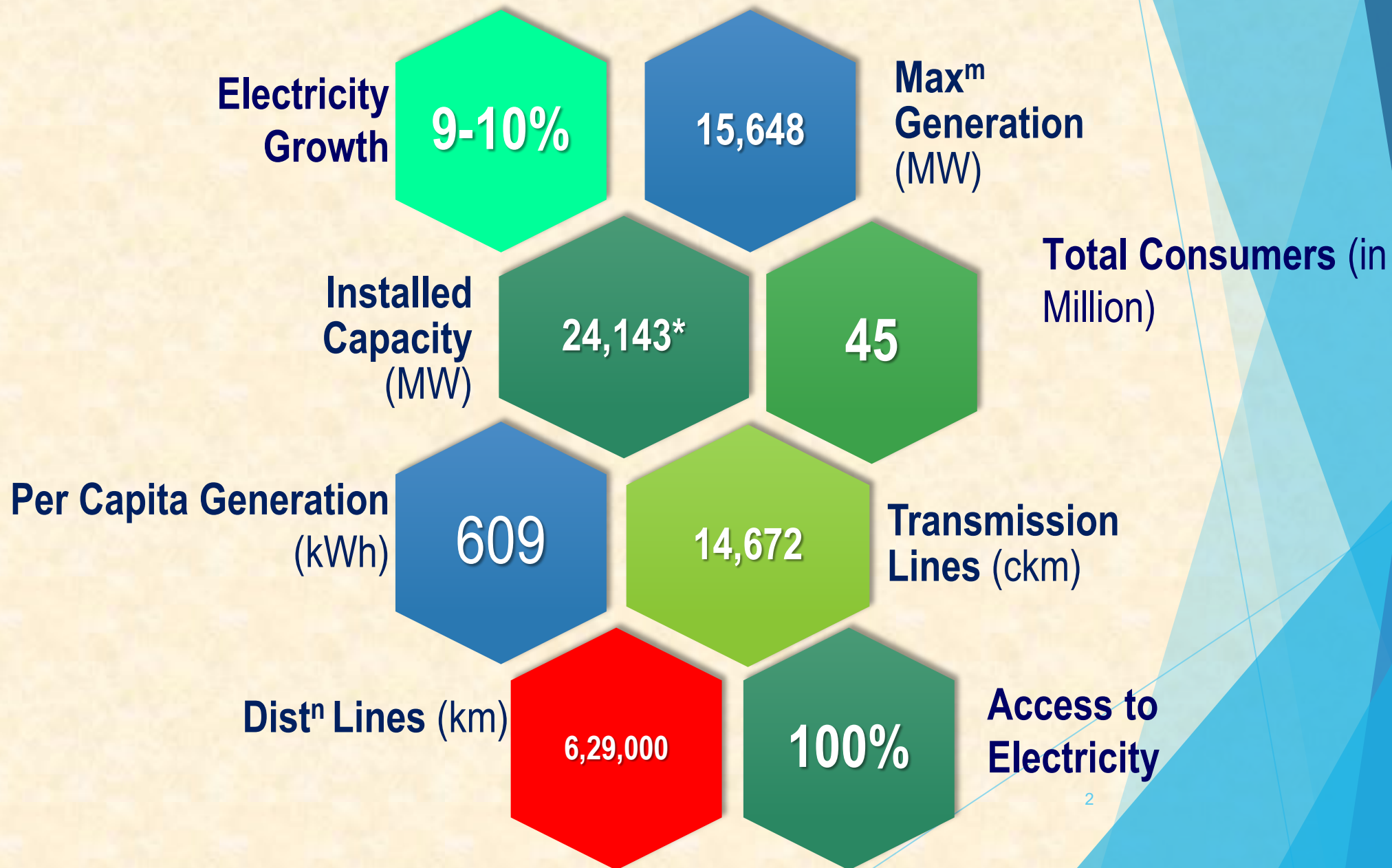
# **Electricity Generation Planning and perspectives for clean energy transition and advancing Cross Border Energy Trade – Bangladesh Perspective**

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**Delhi, India**

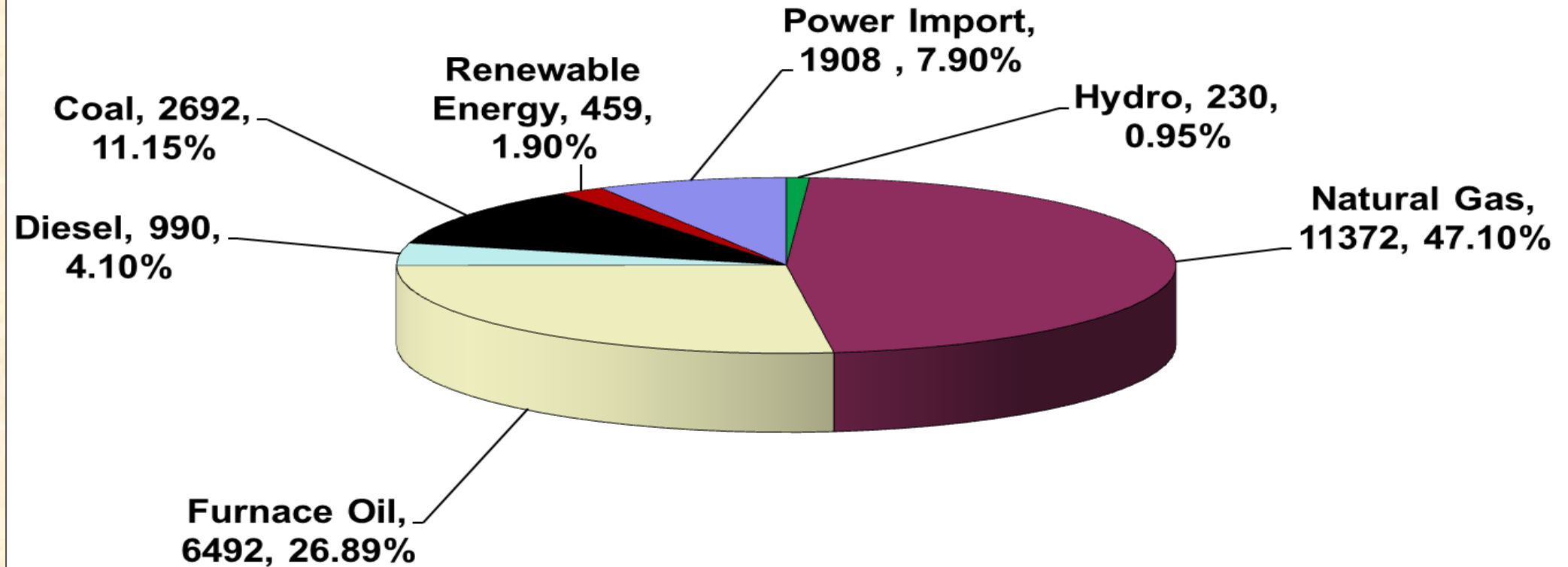
# Bangladesh's Power Sector: At a Glance

2023 (April)



# Present Installed Generation Capacity (April, 2023)

## Installed Capacity as on April, 2023 (By Fuel Type)

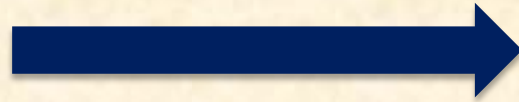


**Total Installed Capacity: 24,143 MW**

# Long Term Generation Expansion Plan

(As per Power System Master Plan)

**2041**



**Developed  
Country**

- **Generation capacity requirement**
  - **By 2030: 40,000 MW**
  - **By 2041: 60,000 MW**

# Cross-border and Regional Energy Trade

## AS per Power System Master Plan (PSMP-2016)

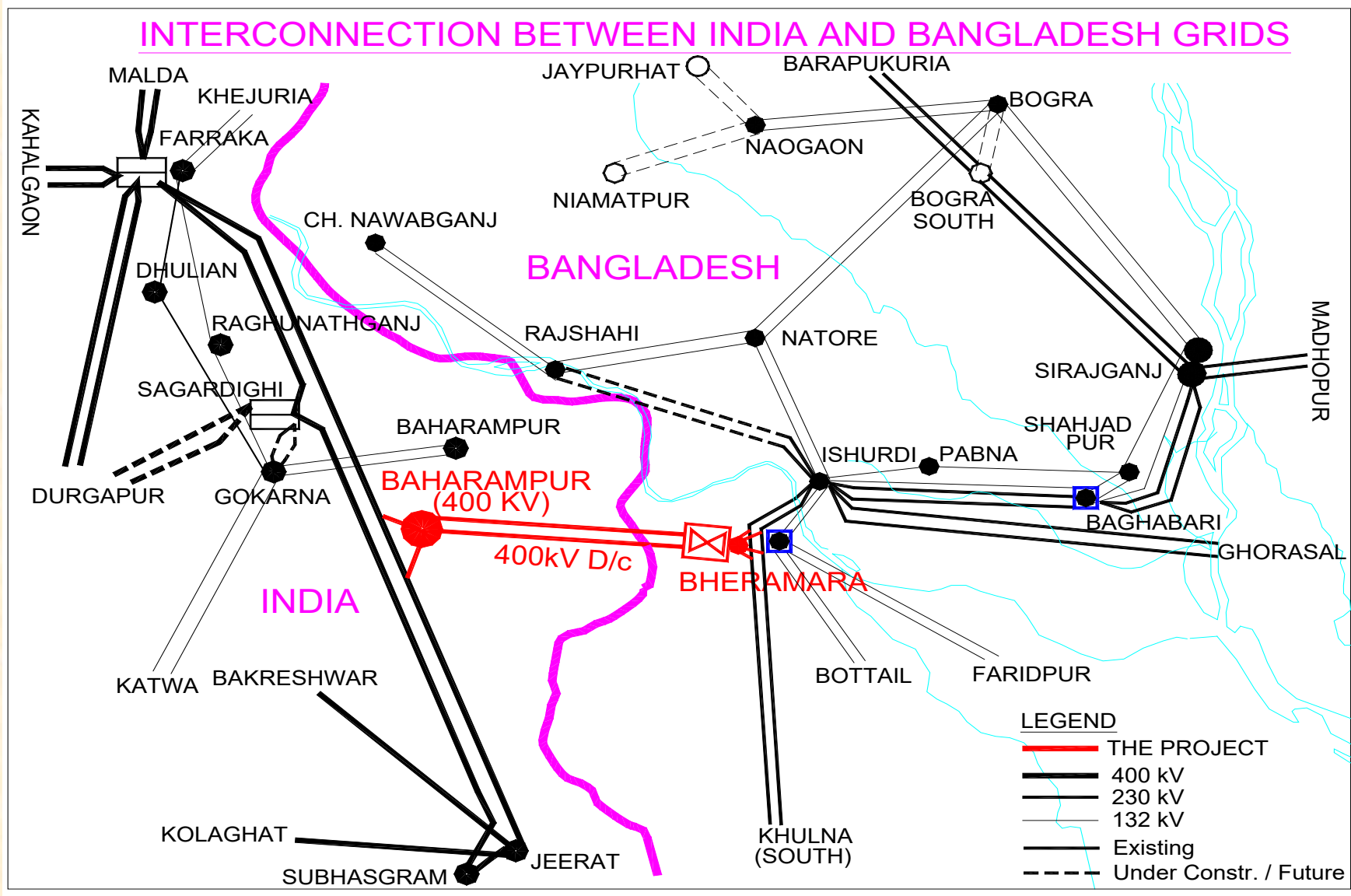
- Cross-border and Regional Energy Trade
  - By 2041: **9000 MW (15%)**

Year	Capacity (MW)
2020	1,200
2025	2,500
2030	5,000
2035	6,500
2041	9,000

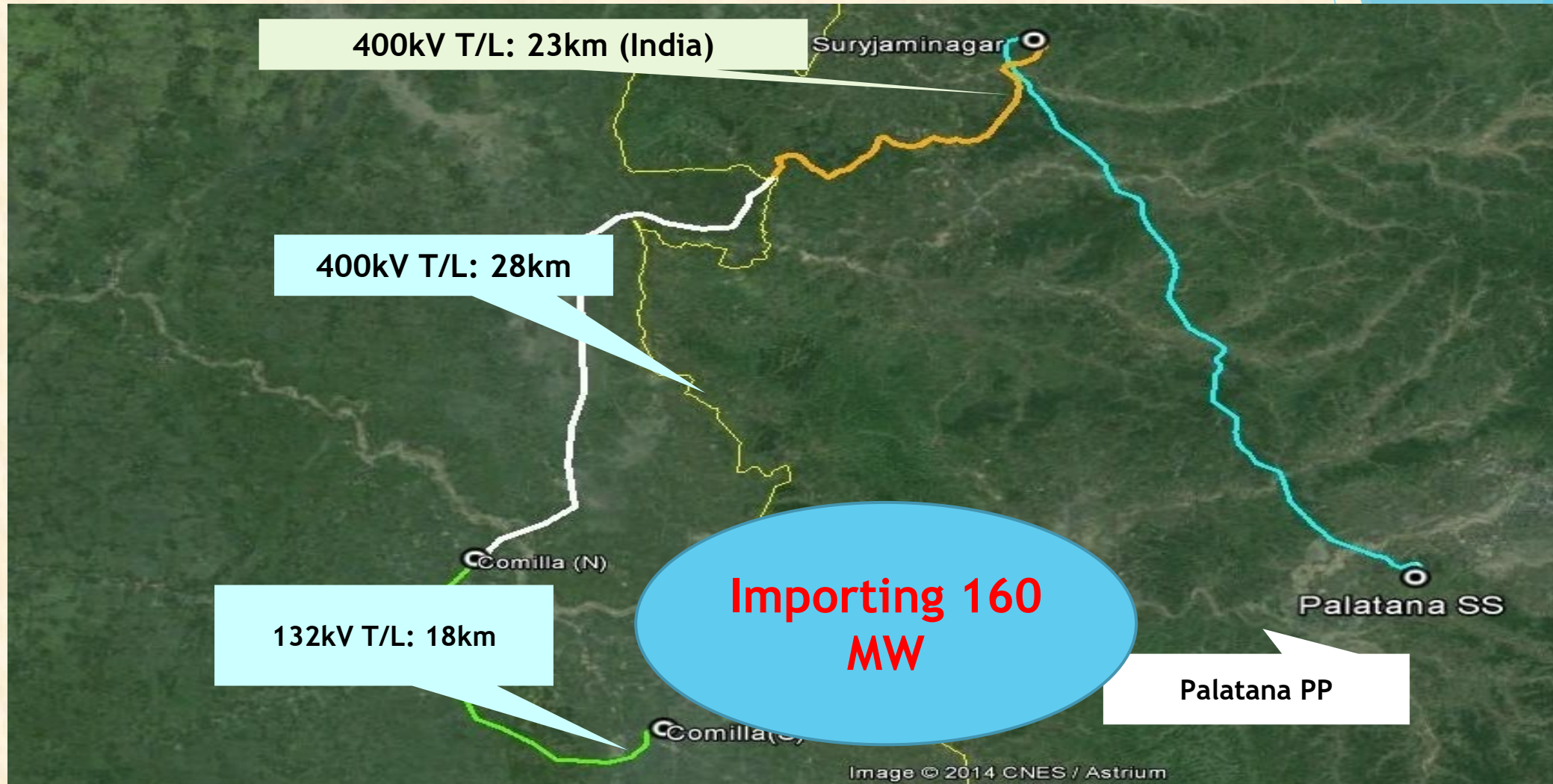
## Existing contracts for power import from India:

Name of Company	Quantum (MW)	Tenure
NVVN, India	250	(25 Years) 05 <sup>th</sup> October 2013 to 04 <sup>th</sup> October 2038 (13 Years 5 Months)
NVVN, India	300	01st January 2020 to 31st May 2033 (13 Years 5 Months)
PTC India Limited	200	01st January 2020 to 31st May 2033 (13 Years 7 Months)
Sembcorp Energy India Limited	250	01st January 2020 to 31st July 2033
NVVN, India	160	(5 + 5 (Extension)) 17.03.2016 to 16.03.2026

# 1<sup>st</sup> Inter-Connection Line between Bangladesh-India



# 2<sup>nd</sup> Grid Inter Connector between Tripura (Ind)-Comilla(BD)



Surjamaninagar - Comilla Transmission Line



# Importing power from Adani Power, India:

<b>Link 3</b>
<b>2×800 MW (net 1496 MW) coal fired thermal power plant of Adani Power Limited (APJL) in Godda District, Jharkhand</b>
<b>Godda (India) to Rohanpur (Bangladesh)</b>
<b>Voltage: 400 kV</b>
<b>Circuit: 02 Nos</b>
<b>Length: 110km (India) + 34km (Bangladesh)</b>
<b>Synchronous Connection</b>
<b>Dedicated Transmission Link</b>
<b>Importation of Power under Contract: 2×800 MW (net 2x748 MW)</b>
<b>Transmission Link Charged: 15 August, 2022</b>
<b>Commercial Operations Date: 06 April 2023 (Unit-1)</b>



# Future Plan on Cross Border Energy Trade with India:

- ▶ BPDB is in process of participating in DAM of Indian Power Exchange.

# Co-operation with Nepal in Power Sector

- Nepal has huge hydropower potential.
- Nepal's total Install capacity is 2690 MW and the total demand is 1900MW.
- Considering all these things, MoU between GoB and GoN is signed on 10.08.2018.

# Present status of Cooperation in Power Sector with Nepal

SL	Particulars	Status
1	Import of 500 MW Power from GMR Upper Karnali Hydropower Ltd. (GUKHL), Nepal through Indian Grid.	<ul style="list-style-type: none"><li>• Power Sales Agreement (PSA) finalized and vetting completed.</li><li>• PSA will be signed very soon.</li></ul>
2	Import of 40 MW Power from Nepal through Indian Grid.	<ul style="list-style-type: none"><li>• Finalization of Power Sales Agreement (PSA) is in process.</li></ul>
3	Development of Sunkoshi-3, 683 MW Hydro Power Plant in Nepal under JV between Bangladesh & Nepal.	<ul style="list-style-type: none"><li>• Review of the EIA report and Feasibility Study report is in progress.</li><li>• JVA is expected to be signed within 6 months.</li></ul>

# Power Sector Cooperation with Bhutan

- Bhutan also has huge hydropower potential
- Bhutan has surplus generation and exporting to India.
- Considering above MoU signing is under process.

# Power Export from Bangladesh

- ▶ **Bangladesh has surplus power during winter season which can Export to neighboring countries during winter seasons.**

# Benefits of Regional Energy Trade

- **Optimal use of regional resources.**
- **Opportunity to trade due to diversity in demand and supply.**
- **Cost effective power system.**
- **Bring down energy prices.**
- **Less exposure to volatile international energy prices.**
- **Cost effective to tackle the sudden spike of demand during heatwave.**
- **Mitigate climate change due to less use of fossil fuel.**

# Challenges and Issues

**To demonstrate the vision of Regional Cooperation, the following issues may be considered:**

- **Unified regulatory framework needs to accommodate Bi-lateral /Tri-lateral/Multi-lateral power trade provisions.**
- **Grid interconnection to be fairly developed and cross border interconnection needs to be shared.**
- **Trust, mutual confidence and mental setup for regional energy integration.**
- **Conduct feasibility study to identify suitable sites for large-scale hydro-based power generation projects.**



**Thank You**